



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/551,426

06/09/2006

Sheng Liu

8231.016

3868

28410 7590 08/19/2008
BERENATO, WHITE & STAVISH, LLC
6550 ROCK SPRING DRIVE
SUITE 240
BETHESDA, MD 20817

EXAMINER

KHAN, MEHMOOD B

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

08/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,426	Applicant(s) LIU ET AL.	
	Examiner MEHMOOD B. KHAN	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8 and 10-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8 and 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- Claims 2, 9 and 15-20 have been cancelled.
- Claims 1, 8, 10, 11, 13 and 14 have been amended.

Response to Arguments

Applicant's arguments with respect to claims 1, 3-8 and 10-14 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 6-8, 10, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmavaara (US 7,242,933) in view of Sarkkinen et al. (US 2003/0119533 herein Sarkkinen) in view of Svedevall et al. (2003/0207687 herein Svedevall).

Claim 1, Ahmavaara discloses a method for user equipments (UE) mobility management in a mobile communication system (**Abstract**), Ahmavaara discloses said first RNC forwarding to the core network said RRC signaling message (**Col 7: 21-24, where Ahmavaara discloses moving the RRC PDU to a core network**); Ahmavaara discloses the core network forwarding transparently to a second RNC RRC signaling

message (**Col 7: 27-33, where Ahmavaara discloses transparency**); Ahmavaara discloses the second RNC receiving and utilizing the forwarded RRC signaling message to perform the requested mobility management (**Col 5: 27-29, Col 7: 15-19, where Ahmavaara discloses mobile movement, initialization of the second controller**).

Ahmavaara does not disclose determining whether there exists lur transport link between said first RNC and said second RNC; the UE transmitting uplink an RRC signaling message to a first RNC so as to request UE mobility management.

In an analogous art, Sarkkinen discloses the UE transmitting uplink an RRC signaling message to a first RNC so as to request UE mobility management (**0078, Fig. 3, where Ahmavaara discloses the UE sends a RRC uplink direct transfer**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify RRC PDU Ahmavaara as the uplink RRC in Sarkkinen so as to so as to notify the RNC of the number of UEs in the cell which are allowed to receive multicast data (**0014**).

Ahmavaara in view of Sarkkinen does not explicitly disclose determining whether there exists lur transport link between said first RNC and said second RNC.

In an analogous art, Svedevall discloses determining whether there exists lur transport link between said first RNC and said second RNC (**0008, where Svedevall discloses setting up an lur link**). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ahmavaara in view of Sarkkinen with the to include setting up an lur link as taught by Svedevall so as to allow sending management information across RNCs (**0013**).

Claim 8, Ahmavaara discloses a mobile communication system for user equipments mobility management (**Abstract**), Ahmavaara discloses said first RNC comprises means for receiving and forwarding to the core network said RRC signaling message (**Col 7: 21-24, where Ahmavaara discloses moving the RRC PDU to a core network**); Ahmavaara discloses the core network comprises means for forwarding transparently to a second RNC said RRC signaling message (**Col 7: 27-33, where Ahmavaara discloses transparency**); Ahmavaara discloses the second RNC comprises means for receiving and utilizing the forwarded RRC signaling message to perform the requested mobility management (**Col 5: 27-29, Col 7: 15-19, where Ahmavaara discloses mobile movement, initialization of the second controller**).

Ahmavaara does not disclose determining whether there exists a transport link between said first RNC and said second RNC, the UE comprises means for transmitting uplink the RRC signaling message to a first RNC so as to request the UE mobility management.

In an analogous art, Sarkkinen discloses the UE comprises means for transmitting uplink the RRC signaling message to a first RNC so as to request the UE mobility management (**0078, Fig. 3, where Ahmavaara discloses the UE sends a RRC uplink direct transfer**). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify RRC PDU Ahmavaara as the uplink RRC in Sarkkinen so as to so as to notify the RNC of the number of UEs in the cell which are allowed to receive multicast data (**0014**).

In an analogous art, Svedevall discloses determining whether there exists lur transport link between said first RNC and said second RNC **(0008, where Svedevall discloses setting up an lur link)**. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ahmavaara in view of Sarkkinen with the to include setting up an lur link as taught by Svedevall so as to allow sending management information across RNCs **(0013)**.

Claim 3, Ahmavaara does not disclose said first RNC is a destination RNC communicating with said UE; said second RNC is a serving RNC for controlling said UE and causing said UE to communicate with the core network.

In an analogous art, Sarkkinen discloses said first RNC is a destination RNC communicating with said UE; said second RNC is a serving RNC for controlling said UE and causing said UE to communicate with the core network **(Fig. 3, where Sarkkinen discloses a New RNC, an Old RNC, a CN and an UE)**. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ahmavaara by using RRC signaling from the UE as taught by Sarkkinen so as to notify the RNC of the number of UEs in the cell which are allowed to receive multicast data **(0014)**.

Claim 6, Ahmavaara does not disclose said UE transmits via a Common Control Channel (CCCH) an RRC signaling message for requesting cell update .

In an analogous art, Sarkkinen discloses said UE transmits via a Common Control Channel (CCCH) an RRC signaling message for requesting cell update **(0071, where Sarkkinen discloses a CCCH)**. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ahmavaara with RRC signaling on the CCCH as taught by Sarkkinen so as to identify cell information **(0068)**.

Claim 7, as analyzed with respect to the limitations as discussed in claim 6.

Claim 10, as analyzed with respect to the limitations as discussed in claim 3.

Claim 13, as analyzed with respect to the limitations as discussed in claim 6.

Claim 14, as analyzed with respect to the limitations as discussed in claim 7.

3. Claims 4, 5, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmavaara in view of Sarkkinen in view of Svedevall in view of Laiho et al. (US 7,127,251 herein Laiho).

Claim 4, Ahmavaara discloses said uplink RRC signaling message as an RANAP signaling message is transmitted from said first RNC to said core network via the lu interface **(Col 7: 21-26, where Ahmavaara discloses RANAP signaling)**.

Ahmavaara does not disclose Message Type, Source ID, Target ID and RRC information relevant to the mobility management requested by the UE.

In an analogous art, Sarkkinen discloses Message Type, and RRC information relevant to the mobility management requested by the UE **(Fig. 7, where Sarkkinen discloses Message Type)**. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ahmavaara by using RRC signaling from the UE as taught by Sarkkinen so as to notify the RNC of the number of UEs in the cell which are allowed to receive multicast data **(0014)**.

Ahmavaara in view of Sarkkinen in view of Svedevall does not disclose a Source ID, Target ID.

In an analogous art, Laiho discloses a Source ID, Target ID **(Fig. 6, where Laiho discloses a Source ID and a Target ID)**. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ahmavaara in view of Sarkkinen in view of Svedevall by using a source and target ID as taught by Laiho so as to mitigate confusion at the target RNC **(Col 2: 58-61)**.

Claim 5, Ahmavaara does not disclose Source ID identifies the second RNC, Target ID identifies the first RNC, and RRC information relevant to the mobility management requested by the UE is defined as cell update message or URA update message.

In an analogous art, Sarkkinen discloses RRC information relevant to the mobility management requested by the UE is defined as cell update message or URA update

message (**Figs. 4, 5, where Sarkkinen discloses a cell and URA updates**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ahmavaara by using RRC signaling from the UE as taught by Sarkkinen so as to notify the RNC of the number of UEs in the cell which are allowed to receive multicast data (**0014**).

Ahmavaara in view of Sarkkinen in view of Svedevall does not disclose Source ID identifies the second RNC, Target ID identifies the first RNC.

In an analogous art, Laiho discloses Source ID identifies the second RNC, Target ID identifies the first RNC (**Fig. 6, where Ahmavaara discloses a Source ID and a Target ID**). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ahmavaara in view of Sarkkinen by using a source and target ID as taught by Laiho so as to mitigate confusion at the target RNC (**Col 2: 58-61**).

Claim 11, as analyzed with respect to the limitations as discussed in claim 4.

Claim 12, as analyzed with respect to the limitations as discussed in claim 5.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MEHMOOD B. KHAN whose telephone number is (571)272-9277. The examiner can normally be reached on Monday - Friday 8:30 am - 5:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Art Unit: 2617

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mehmood B. Khan/ - Examiner, Art Unit 2617

/Lester Kincaid/
Supervisory Patent Examiner, Art Unit 2617